

CLAIM OR CLAIMS

I/WE CLAIM:

*Sudarshan*

1. A method for the lowering of serum cholesterol levels in an individual comprising the steps of
  - 5 making a genetic construct comprising (1) a protein coding sequence encoding for the expression of a fusion protein including a low density lipoprotein receptor and a localization domain which directs localization of the fusion protein to the interior of a cell in the individual, and (2) a promoter effective in the cells of the individual to express the protein coding sequence; and
  - 10 delivering the genetic construct into the individual.
2. A method as claimed in claim 1 wherein the low density lipoprotein receptor is LDLR354.
3. A method as claimed in claim 1 wherein the localization domain is selected from the group consisting of the amino acid sequences KDEL, KEEL, HDEL,
  - 15 DDEL, QDEL, ADEL and SDEL.
4. A method as claimed in claim 1 wherein the localization domain is KDEL.
5. A method for the lowering of plasma triglyceride levels in an individual comprising the steps of
  - 20 making a genetic construct comprising (1) a protein coding sequence encoding for the expression of a fusion protein including a low density lipoprotein receptor and a localization domain which directs localization of the fusion protein to the interior of a cell in the individual, and (2) a promoter effective in the cells of the individual to express the protein coding sequence; and
  - 25 delivering the genetic construct into the cells of the individual.

6. A method as claimed in claim 5 wherein the low density lipoprotein receptor is LDLR354.

7. A method as claimed in claim 5 wherein the localization domain is selected from the group consisting of the amino acid sequences KDEL, KEEL, HDEL,  
5 DDEL, QDEL, ADEL and SDEL.

8. A method as claimed in claim 5 wherein the localization domain is KDEL.

9. A DNA construct comprising a promoter operably linked to a protein coding sequence, the protein coding sequence coding for the expression of a fusion protein comprising a low density lipoprotein receptor and a localization domain signaling for the transport of the fusion protein to the interior of a cell.  
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10. A DNA construct as claimed in claim 9 wherein the low density lipoprotein receptor is LDLR354.

11. A DNA construct as claimed in claim 9 wherein the localization domain  
15 is selected from the group consisting of the amino acid sequences KDEL, KEEL, HDEL, DDEL, QDEL, ADEL and SDEL.

12. A DNA construct as claimed in claim 9 wherein the localization domain is KDEL.

13. An artificially constructed fusion protein comprising  
20 a receptor for low density lipoprotein; and  
a localization domain signaling for retention of the fusion protein in the interior  
of a cell.

14. An artificially constructed fusion protein as claimed in claim 13 wherein the low density lipoprotein receptor is LDLR354.

15. An artificially constructed fusion protein as claimed in claim 13 wherein  
the localization domain is selected from the group consisting of the amino acid  
5 sequences KDEL, KEEL, HDEL, DDEL, QDEL, ADEL and SDEL.

16. An artificially constructed fusion protein as claimed in claim 13 wherein the localization domain is KDEL.